

MANUFACTURE OF SEMICONDUCTOR DEVICE

Patent number: JP2000114172
Publication date: 2000-04-21
Inventor: OTANI HISASHI; TAKANO YOSHIE; YAMAZAKI SHUNPEI
Applicant: SEMICONDUCTOR ENERGY LAB
Classification:
- International: H01L21/20; H01L21/336; H01L29/786; H01L21/02;
H01L29/66; (IPC1-7): H01L21/20; H01L21/336;
H01L29/786
- european:
Application number: JP19980255494 19980909
Priority number(s): JP19980255494 19980909; JP19980225070 19980807

[Report a data error here](#)

Abstract of JP2000114172

PROBLEM TO BE SOLVED: To realize a high-performance semiconductor device by providing a semiconductor film, having crystal properties that can practically be regarded as the single-crystal and assembling the circuit with a TFT, wherein the semiconductor film such as this is the active layer.

SOLUTION: In this manufacture, following steps are provided in a first step, heat annealing is performed for the semiconductor film including germanium; in a next step, laser annealing is performed for the oxidized semiconductor film; in the next step, furnace annealing is performed for the semiconductor film after the laser annealing; and in the last step, oxidizing is performed for the semiconductor film including the crystal. The laser annealing is performed at energy density of 250-5,000 mJ/cm².

Data supplied from the *esp@cenet* database - Worldwide